

ABSTRACT OF THE DISCLOSURE

A grain moisture sensor is disclosed having a sensor cell that includes a driven plate, a sense plate proximate to and substantially parallel with the driven plate for capacitive measurement across a spacing between the driven plate and the sense plate, and a fill plate adjacent the sense plate and substantially parallel with the driven plate for sensing whether the spacing is filled with grain. Optionally, the sensor cell includes a guard proximate to the parallel to the sense plate such that the sense plate is between the driven plate and the guard. The grain moisture sensor provides for measuring real and imaginary components of an excitation voltage applied to the driven plate, measuring real and imaginary components of a sense current sensed at the sense plate, calculating a complex admittance of the cell, calculating a complex admittance of a reference admittance, and calculating a grain complex permittivity.

ASSIGNMENT

The entire right, title and interest in and to this application and all subject matter disclosed and/or claimed therein, including any and all divisions, continuations, reissues, etc., thereof are, effective as of the date of execution of this application, assigned, transferred, sold and set over by the applicant(s) named herein to Deere & Company, a Delaware corporation having offices at Moline, Illinois 61265, U.S.A., together with all rights to file, and to claim priorities in connection with, corresponding patent applications in any and all foreign countries in the name of Deere & Company or otherwise.